REMARKS

Claims 1, 23 and 44 have been amended. No new matter has been added. Support for the amendments can be found in the specification in paragraphs 23, 24, and 25. Claims 1-44 are currently pending in this application.

Claims 1-44 stand rejected under 35 U.S.C. §103(a) as unpatentable over Zhao et al., "Testing SRAM-Based Content Addressable Memories" ("Zhao #1") in view of United States Patent No. 6,496,950 to Zhao et al. ("Zhao #2"), and further in view of Patel, "Circuits for Low Power Traffic Encoding" ("Patel"), as previously outlined in the Office action dated 4/3/2006. The rejection is respectfully traversed.

As amended, independent claim 1 recites, *inter alia*, "(a) testing said CAM device to identify stuck match lines by conducting a 1-pattern or 0-pattern search match line test and repairing or disabling row addresses for the CAM device which corresponds to rows having stuck match lines; (b) testing said CAM device to identify defective pull down lines using a walking 1 or 0 match pattern and repairing or disabling cells at bit positions identified as having defective pull down lines." As amended, independent claim 23 recites, *inter alia*, "wherein said processor operates said interface to test said CAM device for stuck match lines by conducting a 1-pattern search or 0-pattern search match line test, repairing or disabling row addresses for the CAM device which correspond to rows having stuck match lines; to test said CAM device for defective pull down lines using a walking 1 or 0 match pattern, repairing or disabling cells at bit positions identified as having defective pull down lines; and to test each CAM cell to locate faulty CAM cells." As amended, independent claim 44 recites, *inter alia*, "means for testing for stuck match line within the device by conducting a 1-pattern or 0-pattern search match line test and repairing or disabling row addresses for the CAM device which corresponds to rows having stuck match lines; means for testing for

defective pull down lines within the device using a walking 1 or 0 match pattern and repairing or disabling cells at bit positions identified as having defective pull down lines." The combination of Zhao #1, Zhao #2, and Patel fail to disclose at least these limitations.

Zhao #1 and Zhao #2 both describe an eight pass testing method for a CAM in which each pass includes a first operation and may further include a concurrent operation and/or a second operation. The rejection relies upon the reasons outlined in the Office Action of 4/3/2006, which identifies the third pass of Zhao #1 as the equivalent of the first step (a) of claim 1. (OA 4/3/06 pg. 7). The amended claim 1 presented in response to the Office Action of 4/3/2006 was limited from a broad "testing said CAM device for stuck match lines" to a particular testing technique distinguishable from the testing technique utilized in the third pass of Zhao #1. Specifically, the amended claim 1 step (a) disclosed identification of stuck match lines via a "match line test," an example of which is described in paragraph 23 of the specification. In such a test, all CAM cells are written with a 1-pattern (all bits set to 1) and the cells are searched for a 0-pattern (all bits set to 0). (Specification ¶23). By contrast, the third pass of Zhao #1 is a different test, a walking 0 compare operation. The walking 0 compare operation comprises a series of compare operations using consecutive compare words having a single shifting 0 bit, i.e., 1110, 1101, 1011, 0111. (Zhao #1 pg. 1060, first column, last paragraph "Pass 3 and Pass 5 utilize bit-based walking 0/1 patterns..."). Due to this difference, i.e., application of a match line test versus application of a walking compare test, Applicant submits that even without further amendment claim 1 step (a) was distinguishable from the Zhao #1 third pass and the claim should have been allowable. To clarify the application of a different test, claim 1 has been amended to recite "conducting a 1-pattern or 0-pattern search match line test."

In addition, claim 1 step (b) has been amended to include a "walking 1 or 0 match pattern test." Accordingly it should be clear that there is a difference between the first and second step. Two separate tests are executed – a pattern search test in step (a), and a walking 1 or 0 match pattern test in step (b). The Office Action of 4/03/2006 identified the third pass of Zhao #2 as the equivalent of step (b). (OA 4/3/06 pg. 7). Applicant submits that this finding of equivalence is improper. Zhao #1 and Zhao #2 are two different documents which appear to be describing one and the same search algorithm. As such, both describe the same eight pass method. The third pass of Zhao #1 is the same step as the third pass of Zhao #2 (See Zhao #1 pg. 1060, FIG. 3, compare with Zhao #2 Table VI). By identifying the third pass of Zhao #1 as the equivalent of the claimed step (a) and the identifying the third pass of Zhao #2 as the equivalent of the claimed step (b), the Office Action, in effect, is using a single step twice to cover two different testing steps (step (a) and step (b)) which are claimed. As stated above, claimed step (a) and claimed step (b) are separate and distinct tests; the third pass of Zhao #1 and Zhao #2 cannot cover them both, particularly in light of Zhao #2 explicity stating the third pass comprises a single operation. (See Table VI). The basis of this rejection therefore amounts to repetition of elements drawn from multiple references describing what appears to be the same invention. According to MPEP 706.02(j), "the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure." By using the same step twice to cover to different claimed steps, the claim limitation of the separation of tests(a) and (b) is not taught. In the claimed invention, the match lines are tested and the pull down lines are separately tested. Applicant submits that this is improper and respectfully requests withdrawal of the rejection.

In an effort to bring prosecution to a close, independent claim 1 step (a) has been further amended to recite the limitation of "repairing or disabling row addresses for the CAM device which corresponds to rows having stuck match lines" and step (b) has been amended to recite the limitation of "repairing or disabling cells at bit positions identified as having defective pull down lines." (See Specification ¶23-26). In addition to the above noted deficiencies, neither Zhao #1 nor Zhao #2 mention repairing or disabling defective cells, and this deficiency is not cured by Patel. Independent claims 23 and 44 have been amended recite similar limitations. For at least these reasons, withdrawal of the rejection is respectfully requested.

Claims 1, 23, and 44 stand rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. The claims have been amended to address the concerns of the Office Action. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 2-22 and 24-43 depend from claims 1 and 23 respectively and should be allowable as well. Claim 2 has been amended to remove an element of the claim which has become duplicative during prosecution. Applicant respectfully requests rejection of these claims be withdrawn.

In view of the above amendments, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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